

## CLAIMS

I claim:

1           1.     A method in a computer system for identifying users to whom to  
2 promote a selected auction, the selected auction having users that have already bid in the  
3 selected auction, the method comprising:

4                 for each of a plurality of examined auctions other than the selected auction,  
5                 distinguishing the examined auction if the number of users that have bid in the  
6 selected auction that also bid in the examined auction exceeds a minimum threshold; and

7                 for each of the distinguished auctions, identifying users that bid in the  
8 distinguished auction and did not bid in the selected auction.

9           2.     The method of claim 1, further comprising promoting the selected  
10 auction to the identified users.

11           3.     The method of claim 1, further comprising transmitting electronic mail  
12 messages to the identified users promoting the selected auction to them.

13           4.     The method of claim 1, further comprising, when any of the identified  
14 users request a selected web page:

15                 incorporating in the selected web page information promoting the selected  
16 auction; and

17                 after such incorporation, returning the selected web page to the user.

18           5.     A computer-readable medium whose contents cause a computer system  
19 to identify users to whom to promote a selected auction, the selected auction having users  
20 that have already bid in the selected auction, by:

4 for an examined auction other than the selected auction, distinguishing the  
5 examined auction if the number of users that have bid in the selected auction that also bid in  
6 the examined auction exceeds a minimum threshold; and  
7 if the examined auction is distinguished, identifying users that bid in the  
8 distinguished auction and did not bid in the selected auction.

1 6. The computer-readable medium of claim 5 wherein the contents of the  
2 computer-readable medium further cause the computer system to promote the selected  
3 auction to the identified users.

1 7. The computer-readable medium of claim 5 wherein the contents of the  
2 computer-readable medium further cause the computer system to transmit electronic mail  
3 messages to the identified users promoting the selected auction to them.

1 8. The computer-readable medium of claim 5 wherein the contents of the  
2 computer-readable medium further cause the computer system to, when any of the identified  
3 users request a selected web page:

4 incorporate in the selected web page information promoting the selected  
5 auction; and

6 after such incorporation, return the selected web page to the user.

1 9. A method in a computer system for identifying users to whom to  
2 promote a selected auction among a set of users, where a proper subset of the clustered users  
3 have already bid in the selected auction, the method comprising:

4 applying clustering techniques to identify clusters of users among the set of  
5 users; and

6 in response to a bid by a selected user in the selected auction,

7 identifying any cluster of which the selected user is a member, more  
8 than a threshold number of whose members have bid in the selected auction, and

9 identifying users of the identified clusters who have not bid in the  
10 selected auction.

1           10.    The method of claim 9, further comprising determining to which of the  
2 users of the identified clusters who have not bid in the selected auction the selected auction  
3 has already been promoted, and wherein the identifying identifies users of the identified  
4 clusters to whom the selected auction has not already been promoted.

1           11.    The method of claim 9, further comprising promoting the selected  
2 auction to the identified users.

1           12.    The method of claim 9, further comprising transmitting electronic mail  
2 messages to the identified users promoting the selected auction to them.

1           13.    The method of claim 9, further comprising, when any of the identified  
2 users request a selected web page:  
3           incorporating in the selected web page information promoting the selected  
4 auction; and  
5           after such incorporation, returning the selected web page to the user.

1           14.    A computer-readable medium whose contents cause a computer system  
2 to identify users to whom to promote a selected auction among a set of users, where a proper  
3 subset of the clustered users have already bid in the selected auction, by:  
4           applying clustering techniques to identify a cluster of users among the set of  
5 users; and  
6           in response to a bid in the selected auction by a selected user that is a member  
7 of the cluster, identifying users of the cluster who have not bid in the selected auction.

1           15.    The computer-readable medium of claim 14 wherein the contents of the  
2 computer-readable medium further cause the computer system to determine to which of the  
3 users of the identified clusters who have not bid in the selected auction the selected auction  
4 has already been promoted, and wherein the identifying identifies users of the identified  
5 clusters to whom the selected auction has not already been promoted.

1           16.    The computer-readable medium of claim 14 wherein the contents of the  
2 computer-readable medium further cause the computer system to promote the selected  
3 auction to the identified users.

1           17.    The computer-readable medium of claim 14 wherein the contents of the  
2 computer-readable medium further cause the computer system to transmit electronic mail  
3 messages to the identified users promoting the selected auction to them.

1           18.    The computer-readable medium of claim 14 wherein the contents of the  
2 computer-readable medium further cause the computer system to, when any of the identified  
3 users request a selected web page:

4           incorporate in the selected web page information promoting the selected  
5 auction; and

6           after such incorporation, return the selected web page to the user.

7           19.    A method in a computer system for identifying users to whom to  
8 promote a selected auction, the selected auction having users that have already bid in the  
9 selected auction, the method comprising:

10           maintaining a representation of bidding histories of a plurality of users that is a  
11 superset of the users that have already bid in the selected auction; and

12           identifying users that have not already bid in the selected auction that have  
13 bidding histories that are similar to those of users that have already bid in the selected  
14 auction.

1           20.    The method of claim 19 wherein users are identified using clustering  
2 techniques.

1           21.    The method of claim 19, further comprising promoting the selected  
2 auction to the identified users.

1           22.    The method of claim 19, further comprising transmitting electronic mail  
2 messages to the identified users promoting the selected auction to them.

1           23.    The method of claim 19, further comprising, when any of the identified  
2 users request a selected web page:

3                incorporating in the selected web page information promoting the selected  
4 auction; and

5                after such incorporation, returning the selected web page to the user.

1           24.    A computer-readable medium whose contents cause a computer system  
2 to identify users to whom to identify users to whom to promote a selected auction, the  
3 selected auction having users that have already bid in the selected auction, by:

4                maintaining a representation of bidding histories of a plurality of users that is a  
5 superset of the users that have already bid in the selected auction; and

6                identifying users that have not already bid in the selected auction that have  
7 bidding histories that are similar to those of users that have already bid in the selected  
8 auction.

1           25.    The computer-readable medium of claim 24 wherein users are identified  
2 using clustering techniques.

1           26.    The computer-readable medium of claim 24 wherein the contents of the  
2 computer-readable medium further cause the computer system to promote the selected  
3 auction to the identified users.

1           27.    The computer-readable medium of claim 24 wherein the contents of the  
2 computer-readable medium further cause the computer system to transmit electronic mail  
3 messages to the identified users promoting the selected auction to them.

1           28.    The computer-readable medium of claim 24 wherein the contents of the  
2 computer-readable medium further cause the computer system to, when any of the identified  
3 users request a selected web page:

4               incorporate in the selected web page information promoting the selected  
5 auction; and

6               after such incorporation, return the selected web page to the user.

1           29.    A method in a computer system for promoting a first auction in which a  
2 first user has bid, comprising:

3               identifying a second user that has not bid in the first auction and that has bid in  
4 a second auction in which the first user has bid; and

5               promoting the first auction to the second user.

1           30.    A computer system for promoting a first auction in which a first user has  
2 bid, comprising:

3               a user identification subsystem adapted to identify a second user that has not  
4 bid in the first auction and that has bid in a second auction in which the first user has bid;  
5 and

6               an auction promotion subsystem adapted to promote the first auction to the  
7 second user.